Joint Theater Trauma System Clinical Practice Guideline

EMERGENT RESUSCITATIVE THORACOTOMY					
Original Release/Approval		28 July 2007	Note: This CPG requires an annual review.		
Reviewed:	Apr 2009	Approved:	6 May 2009		
Supersedes: Emergent Resuscitative Thoracotomy, 7 Nov 2008					
Minor Changes (or)		Changes are substantial and require a thorough reading of this CPG (or)			
☐ Significa	nt Changes				

1. Goal: Provide guidance on the indications to perform an emergent resuscitative thoracotomy (EDT).

2. Background.

- a. Resuscitative thoracotomy on the battlefield is indicated and warranted only in patients with penetrating injuries who present either in extremis or who have had a recent loss of vital signs. Though most of these casualties will not survive, a small percentage of patients who undergo an emergency thoracotomy can be salvaged with normal neurological outcomes possible.
- b. Emergency thoracotomy should be performed only in a facility able to support advanced resuscitative efforts (e.g. level IIb, II+ or level III facility)
- c. A subxiphoid pericardial window should not be attempted in an unstable patient.
- d. Unstable patients with penetrating injuries suspicious for cardiac injury in a level IIb/+ or level III setting should undergo immediate emergency thoracotomy.
- e. There is no role for emergency thoracotomy in patients who have suffered blunt trauma.

3. Evaluation and Treatment.

- a. See Appendix A for the Emergency thoracotomy algorithm.
- **4. Responsibilities**. It is the responsibility of the trauma team leader to ensure compliance with this CPG.

5. References.

¹ Moore EE, Feliciano DV, Mattox KL eds: TRAUMA, 2004, 5th Edition

² Emergency War Surgery, Third United States Revision, 2004

³ Peitzman, et al: *The Trauma Manual*, 2002, 2nd edition,

⁴ Rhee PM, Acosta J, Bridgeman A, et al. Survival after emergency department thoracotomy: J Am Coll Surg 2000; 190(3): 288-98.5.

 $^{^{\}rm 5}$ MacFarlane C, Emergency thoracotomy and the military surgeon. ANZ J Surg 2004; $74(4){:}280{-}4$

Approved by CENTCOM JTTS Director and Deputy Director and CENTCOM SG

Opinions, interpretations, conclusions, and recommendations are those of the authors and are not necessarily endorsed by the Services or DoD.

JTTS CLINICAL PRACTICE GUIDELINES FOR EMT THORACOTOMY Patient arrives with CPR in progress Blunt Dead trauma Yes ECG: Any organized Noelectrical rhythm Penetrating Isolated Head CPR: >10 min? trauma Injury Yes NoATLS maneuvers: Intubation Bilateral chest tubes Yes Volume infusion FAST exam Left anterior thoracotomy Pericardiocentesis Blunt No Trauma? Clinical response? No Cardiac Yes rhythm? Yes No Dead Continue assessment and Noresuscitation Pericardial tamponade? Yes Repair cardiac injury Abdominal Thoracic Bronchovenous air Pericardial hemorrhage hemorrhage emboli tamponade Control bleeding Cross-clamp Cross-clamp thoracic aorta pulmonary hilum SBP: Yes >70 mm Hg? Reassess salvagability NoDead

APPENDIX A

JITTS CLINICAL PRACTICE GUIDELINES FOR EMT THORACOTOMY

APPENDIX B

ADDITIONAL INFORMATION REGARDING OFF-LABEL USES IN CPGs

A. Purpose.

The purpose of this Appendix is to ensure an understanding of DoD policy and practice regarding inclusion in CPGs of "off-label" uses of U.S. Food and Drug Administration (FDA)—approved products. This applies to off-label uses with patients who are armed forces members.

B. Background.

Unapproved (i.e., "off-label") uses of FDA-approved products are extremely common in American medicine and are usually not subject to any special regulations. However, under Federal law, in some circumstances, unapproved uses of approved drugs are subject to FDA regulations governing "investigational new drugs." These circumstances include such uses as part of clinical trials, and in the military context, command required, unapproved uses. Some command requested unapproved uses may also be subject to special regulations.

C. Additional Information Regarding Off-Label Uses in CPGs.

The inclusion in CPGs of off-label uses is not a clinical trial, nor is it a command request or requirement. Further, it does not imply that the Military Health System requires that use by DoD health care practitioners or considers it to be the "standard of care." Rather, the inclusion in CPGs of off-label uses is to inform the clinical judgment of the responsible health care practitioner by providing information regarding potential risks and benefits of treatment alternatives. The decision is for the clinical judgment of the responsible health care practitioner within the practitioner-patient relationship.

D. Additional Procedures.

- 1. <u>Balanced Discussion</u>. Consistent with this purpose, CPG discussions of off-label uses specifically state that they are uses not approved by the FDA. Further, such discussions are balanced in the presentation of appropriate clinical study data, including any such data that suggest caution in the use of the product and specifically including any FDA-issued warnings.
- **2. Quality Assurance Monitoring.** With respect to such off-label uses, DoD procedure is to maintain a regular system of quality assurance monitoring of outcomes and known potential adverse events. For this reason, the importance of accurate clinical records is underscored.
- 3. <u>Information to Patients</u>. Good clinical practice includes the provision of appropriate information to patients. Each CPG discussing an unusual off-label use will address the issue of information to patients. When practicable, consideration will be given to including in an appendix an appropriate information sheet for distribution to patients, whether before or after use of the product. Information to patients should address in plain language: a) that the use is not approved by the FDA; b) the reasons why a DoD health care practitioner would decide to use the product for this purpose; and c) the potential risks associated with such use.